PDB115

THE IMPACT OF DAYTIME AND NOCTURNAL NON-SEVERE HYPOGLYCAEMIC EVENTS ON PEOPLE WITH DIABETES IN SINGAPORE

Jain A[1], Todorova L[2]

[1]*Novo Nordisk Pharma (Malaysia) Sdn. Bhd., Kuala Lampur, Malaysia,* [2]*Novo Nordisk International Operations, Zurich, Switzerland*

OBJECTIVES: To study the effect of nocturnal and daytime non-severe hypoglycaemic events on people with diabetes in Singapore. **METHODS:** People with diabetes from five countries, including Singapore, who had experienced a non-severe hypoglycaemic event in the 4 weeks prior to the survey were eligible. Both surveys were conducted face to face; all information, including hypoglycaemic events, was self-reported. **RESULTS:** In the Singaporean cohort, 76 people responded (50 for the nocturnal survey [N]; 51 for the daytime survey [D]). Mean age was 54 years/56 years (N/D), mean weight was 63.2 kg/68.3 kg (N/D), 48%/49% (N/D) were male, and 70%/80% (N/D) had type 2 diabetes. Among respondents with type 2 diabetes, 11%/10% (N/D) received insulin and 100%/100% (N/D) received oral medication. Almost half of respondents had diabetes-related complications (46%/49% [N/D]), and 16%/18% (N/D) experienced hypoglycaemia at least once/week. When asked about hypoglycaemia awareness, 14%/14% (N/D) reported only noticing they were hypoglycaemic during routine blood glucose checks, while 8%/16% (N/D) were generally unaware of an event. After a hypoglycaemic event, 12%/20% contacted a health care professional and, in the following week, used on average 1.1/2.1 (N/D) extra blood glucose strips. Following a nocturnal event, mean time to return to sleep was 63 minutes; 24% reported difficulty returning to sleep after the event, almost two thirds (62%) felt tired and/or fatigued the next day, and 22% reported high level of fear of a future event. In the daytime survey, the most common measures taken in order to avoid hypoglycaemia were defensive snacking and avoiding exercise. Respondents reported spending most time worrying about feeling lightheaded/dizzy, having an event while alone, and passing out in public. **CONCLUSIONS:** In Singapore, hypoglycaemic events impact health care utilisation and daily routines for people with diabetes. Treatment strategies to decrease hypoglycaemia could offer substantial benefits to people with diabetes.

PDB116

EFFECT OF NOCTURNAL AND DAYTIME NON-SEVERE HYPOGLYCAEMIC EVENTS ON PEOPLE WITH DIABETES IN MEXICO

Aguilar Garza JL[1], Vazquez CE[1], Reynoso Mendoza RA[2], Guzman Caniupan JA[2]

[1]*Vitamédica, México D.F., Mexico,* [2]*Novo Nordisk Servicios, México D.F., Mexico*

OBJECTIVES: To study the effect of nocturnal and daytime non-severe hypoglycaemic events on the utilisation of health care services and patient quality of life in Mexico. **METHODS:** People with diabetes from six different countries who had experienced a self-reported non-severe hypoglycaemic event in the past 4 weeks were eligible to take part in a nocturnal (N) and/or daytime (D) hypoglycaemia survey. In the Mexican cohort, 77 people responded (50 for the nocturnal survey; 50 for the daytime survey). The surveys were conducted either face to face or online. **RESULTS:** In the Mexican subgroup, 82%/80% (N/D) of respondents had type 2 diabetes, 38%/42% (N/D) were male, mean age was 52 years/53 years (N/D), and mean weight was 74.4 kg/75.6 kg (N/D). Respondents received treatment with insulin (32%/38% [N/D]), oral medication (95%/95% [N/D]) and/or diet and exercise (49%/58% [N/D]), and 70%/76% considered themselves in good health. Non-severe hypoglycaemic episodes were experienced at least once weekly by 34%/44% (N/D) and at least once a month by 76%/68% (N/D) of respondents. After a hypoglycaemic event, 41%/16% (N/D) of respondents decreased their insulin dose, 50%/58% contacted a health care professional, and, in the following week, used on average 2/5 (N/D) extra blood glucose strips. Almost half of respondents reported a high level of fear of hypoglycaemic events (46%/46% [N/D]). Following a nocturnal hypoglycaemic event, mean time to return to sleep was 89 minutes, 11% did not go back to sleep at all, and 38% reported the nocturnal event had a high impact on their quality of sleep. Of respondents who worked for pay (*n*=23/21), 30%/67% (N/D) went to work late or left early, and 13%/24% (N/D) missed ≥1 full working day. **CONCLUSIONS:** In Mexico, nocturnal and daytime non-severe hypoglycaemic events severely impact quality of life, quality of sleep and productivity in people with diabetes.

PDB117

UTILISATION OF HEALTH CARE SERVICES AND PATIENT QUALITY OF LIFE FOLLOWING NOCTURNAL AND DAYTIME NON-SEVERE HYPOGLYCAEMIC EVENTS IN PEOPLE WITH DIABETES IN COLOMBIA

Gómez AM[1], Cendales Rey JG[2], Chaves Cardona R[2]

[1]*Hospital Universitario de San Ignacio, Universidad Javeriana, Bogotá, Colombia,* [2]*Novo Nordisk Colombia SAS, Bogotá, Colombia*

OBJECTIVES: To study the effect of nocturnal and daytime non-severe hypoglycaemic events on the utilisation of health care services and health-related quality of life in people with diabetes in Colombia. **METHODS:** People with diabetes from five different countries who had experienced a non-severe hypoglycaemic event in the past 4 weeks were asked to take part in a nocturnal (N) and/or daytime (D) hypoglycaemia survey. In the Colombian subgroup, 83 people responded (50 respondents for the nocturnal survey; 50 for the daytime survey). Both surveys were conducted face-to-face. All information, including hypoglycaemic events, was self-reported. **RESULTS:** In the Colombian cohort, respondents' mean age was 58 years/54 years (N/D), mean weight was 64.3 kg/65.5 kg (N/D), 36%/38% (N/D) were male, 76%/76% (N/D) had type 2 diabetes, and all received treatment with insulin (100%/100% [N/D]). Although 78%/82% (N/D) of respondents considered themselves in good health, almost half had diabetes-related complications (48%/54% [N/D]). Non-severe hypoglycaemic episodes were experienced at least once weekly by 16%/20% (N/D) and at least once a month by 70%/70% (N/D). After a hypoglycaemic event, 0%/24% (N/D) decreased their insulin dose, 32%/40% contacted a health care professional, and, in the following week, they used on average 5/6 (N/D) extra blood glucose strips. The majority of respondents reported a high level of fear of nocturnal hypoglycaemic events (60%/36% [N/D]). One third (32%) reported that a nocturnal event had a high impact on quality of sleep, and one in five (22%) reported that an event highly impacted their social life. Hypoglycaemic events did not severely effect paid work (*n*=16/15), with 19%/7% (N/D) of respondents reporting arriving at work late or leaving early, and 13%/7% (N/D) missing ≥1 full working day. **CONCLUSIONS:** Nocturnal and daytime non-severe hypoglycaemic events have an impact upon patients' health-related quality of life and diabetes management in Colombia.

DIABETES/ENDOCRINE DISORDERS – Health Care Use & Policy Studies

PDB118

ROLE OF PATIENTS IN SHARING THE DECISION TO UNDERTAKE BARIATRIC SURGERY FOR TREATMENT OF OBESITY – A GLOBAL MARKET PERSPECTIVE

Chawla AS[1], Spinner DS[2], Faulkner EC[3], Cabra H[4], Patkar AD[5], Fegelman E[6]

[1]*Quintiles Consulting, Durham, NC, USA,* [2]*Quintiles Global Consulting, Hawthorne, NY, USA,* [3]*Quintiles Global Consulting, Durham, NC, USA,* [4]*Ethicon Endo-Surgery, Inc, Cincinnat, OH, USA,* [5]*Ethicon, Inc, Somerville, NJ, USA,* [6]*Ethicon, Cincinnati, OH, USA*

OBJECTIVES: While bariatric surgery is being increasingly employed as a cost-effective option for treatment of obesity, it has not yet realized its full potential. Patient participation in the full treatment cycle is key to adoption and outcomes. To that end, the objectives of this study were three-fold: 1) Determine how patients are expected to share the burden of bariatric surgery treatment efficacy, 2) Characterize factors that influence patient willingness to adopt and pay, and 3) Identify approaches to improve patient outcomes. **METHODS:** Global clinical guidelines and HTAs published from 2008-2013 were analyzed. These results were collated with a survey of 2,784 patients across 12 countries, representing major markets in the Americas, Europe, Middle East, and Asia. Surveyed patients were in 26 – 50 age-groups and with BMI in the 34.3 – 43.4 kg/m^2 range. It evaluated patients' perception of barriers in terms of cost and safety, and motivators to adopt surgical procedures for treatment of obesity. **RESULTS:** Clinical guidelines and HTAs recommended that pre-treatment patients comply with weight-loss regimens, and post-treatment adhere to severe dietary restrictions, life-style changes, and life-long follow-up. The survey indicated that while patient age, income level, and physicians' opinion were strong indicators of patients' likelihood of considering surgery, BMI was not. Importantly, three significant barriers to adoption were identified: a) lack of understanding of safety and efficacy, b) the perceived out-of-pocket cost of treatment, and c) the extent of sustainable life style changes expected of patients. **CONCLUSIONS:** Although bariatric surgery is considered potentially clinically- and cost-effective, patient willingness to undertake surgery indicates a chasm between perception and reality. To aid in bridging that gap, findings suggested that three key issues must be addressed: a) improve patient education and physician engagement, b) expand the evidence base to demonstrate long-term clinical benefits of surgery, including metabolically-related risk factors, and c) demonstrate economic benefits to price-sensitive patients.

PDB119

THE IMPACT OF A VALUE-BASED COPAYMENT WAIVER BENEFIT ON MEDICATION USE AND SPENDING BY PATIENT SUBGROUP

Gibson TB[1], Maclean R[2], Carls G[1], Moore BJ[1], Ehrlich E[1], Baigel C[3]

[1]*Truven Health Analytics, Ann Arbor, MI, USA,* [2]*Bristol-Myers Squibb, Plainsboro, NJ, USA,* [3]*Bristol-Myers Squibb, New York, NY, USA*

OBJECTIVES: To evaluate the impact of an employer-based copayment waiver for diabetes care on medication adherence, diabetes care and spending among enrollees with diabetes and within subgroups of patients who had low use, moderate use, and adherent use of diabetes medications prior to start of the benefit. **METHODS:** Enrollees in eligible health plans with diabetes were automatically enrolled in a copayment waiver ($0 copay) benefit beginning January 2011 for diabetes, cardiovascular, and lipid lowering medications, screenings, diabetes supplies, and diabetes related office visits. The study included 444 enrollees with diabetes who were propensity score matched to a comparison group of patients with diabetes within nine similar firms without these benefits (N=444 comparison). An enrollee-calendar quarter panel data set was constructed from January 2009-June 2012. Impact was measured as the change in outcomes post-enrollment in the copayment waiver group relative to the change in the comparison group (difference-in-differences). Percent of Days Covered (PDC) with diabetes medications prior to 2011 was used to classify patients: low adherence (PDC<20%, N=127 treatment, N=127 comparison), moderate adherence (20%≤PDC<80%, N=115 treatment, N=115 comparison), and adherent (PDC≥ 80%, N=202 treatment, N=202 comparison). **RESULTS:** In the full sample, PDC for oral diabetes medications increased 8.7% points to 54.2% (13.3% increase, P<0.01), the number of outpatient office visits for diabetes increased 10.8% (P=0.03) and prescription fills of diabetes supplies increased 29.1% (P<0.01). Among enrollees with low prior adherence, PDC increased from 10.5% to 20.9% (95% increase, P<0.01). In the full sample, total spending (medical plus prescription drug) did not change (P=0.76). **CONCLUSIONS:** Results through the first eighteen months show that waiving copayments for patients with diabetes can improve adherence to diabetes medication, office visits and supplies with a minimal impact on spending. Large increases in adherence occurred for patients with the low levels of pre-program adherence.

PDB120

RETROSPECTIVE COHORT ANALYSIS OF THE PATTERNS AND PREDICTORS OF METFORMIN TREATMENT CHANGE IN A MEDICARE ADVANTAGE PATIENT POPULATION FROM A LARGE NATIONAL HEALTH PLAN

Hazel-Fernandez L[1], Xu Y[2], Moretz C[1], Meah Y[3], Baltz J[3], Lian J[4], Bouchard JR[5]

[1]*Comprehensive Health Insights, Humana, Miramar, FL, USA,* [2]*Humana, Inc., Louisville, KY, USA,* [3]*Humana Inc., Louisville, KY, USA,* [4]*Novo Nordisk Inc., Princeton, NJ, USA,* [5]*Novo Nordisk Inc., Plainsboro, NJ, USA*

OBJECTIVES: No consensus exists among the ADA and the AACE guidelines regarding therapy intensification for patients with type 2 diabetes mellitus (T2DM)